

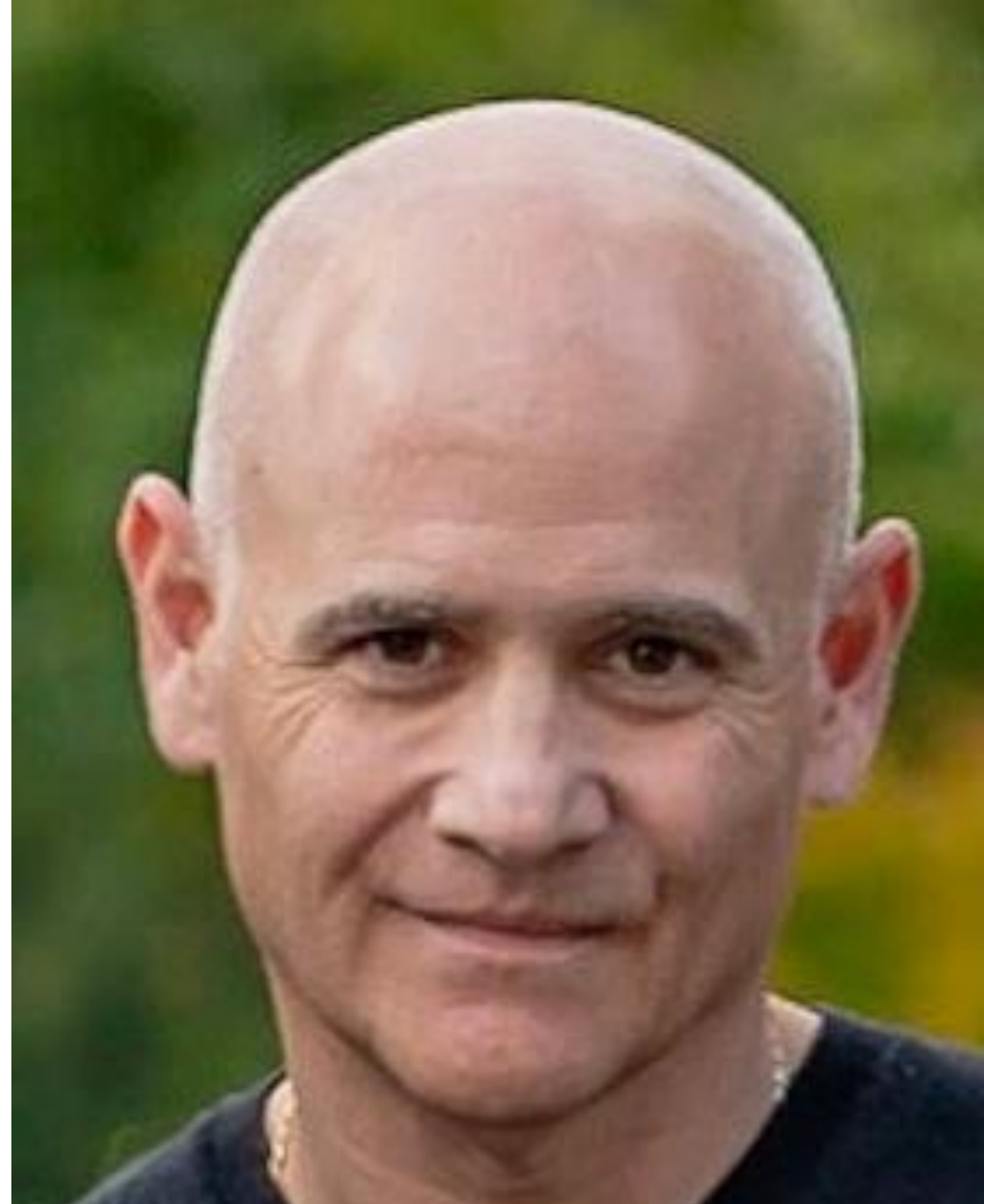
# Session 3: Standards-Driven Public- Private Partnerships (PPPs)

## Standards Development Organization Perspective

Pat Picariello

Director, Developmental Operations

ASTM International



# Why ASTM Created the AM CoE?



1. Standardization in general is not a fast process
2. Critical need to develop **globally accepted AM standards** and close standardization gaps
3. Critical to facilitate **transitioning R&D into standards** development
4. Critical need to **educate the next generation** of AM professionals

ASTM's Core  
Product



Collaboration



Earlier engagement  
between standards  
development and R&D

Manufacturing



Cost-efficient manufacturing and safe end-  
product on the AM market

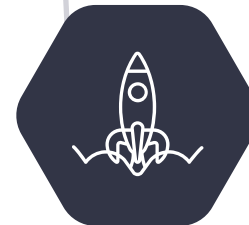
ASTM to better serve industry with standards  
and related programs for industry

Serving  
Industry/  
Government

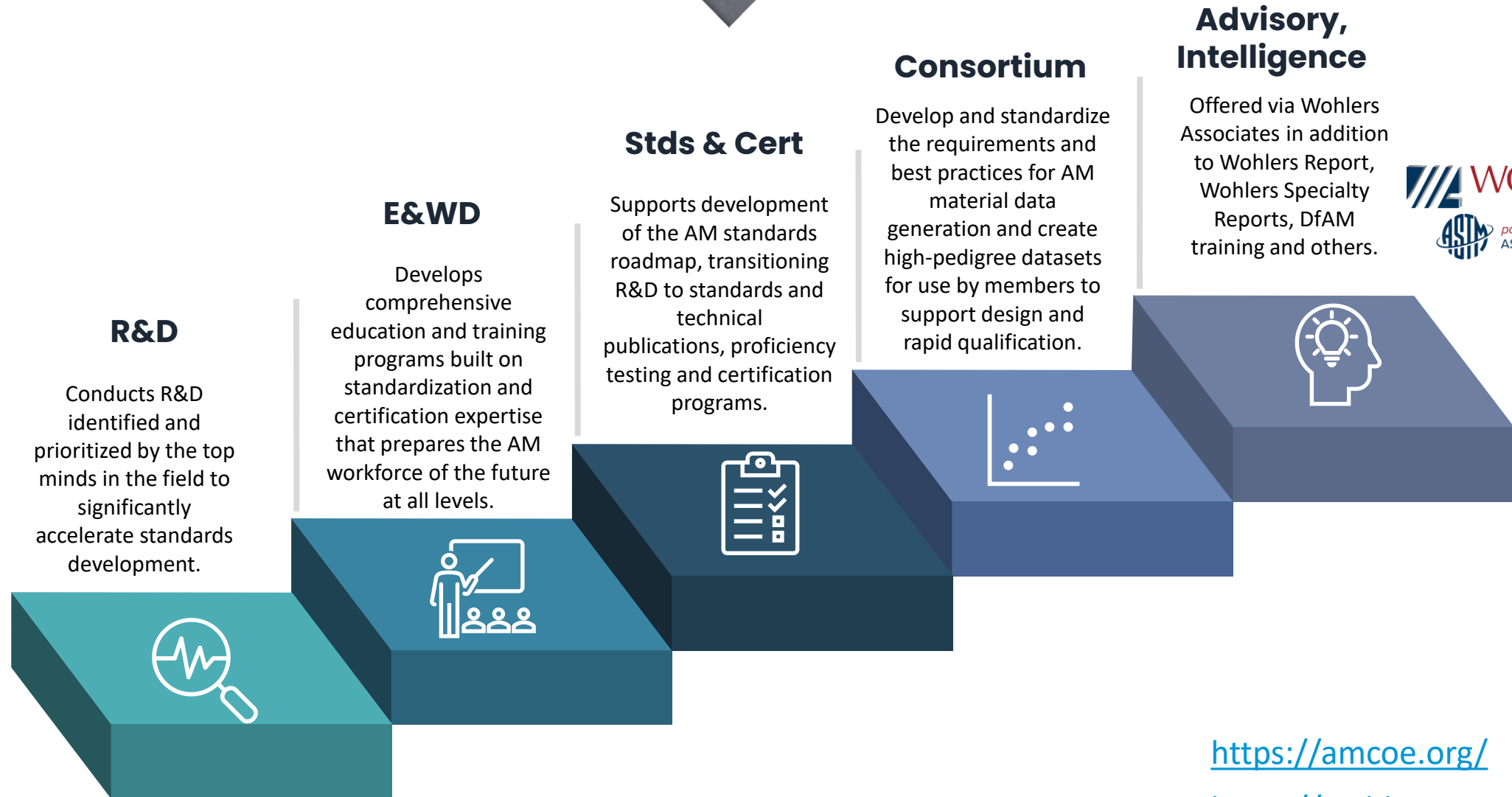


Formed in 2018, the AM CoE is a **collaborative partnership** among ASTM International and organizations from industry, government, and academia, that conduct strategic R&D to advance standards across all aspects of AM technologies. The center aims to accelerate the development and adoption of robust, game-changing technologies by supporting:

- **Standardization and its acceleration,**
- Developing **training** and **certification** programs,
- Providing **market intelligence, business strategy,** and
- **Advisory services** via **Wohlers Associates, powered by ASTM International.**



5 pillars



<https://amcoe.org/>

<https://wohlersassociates.com/>



# Innovation in Standards Development (R2S)



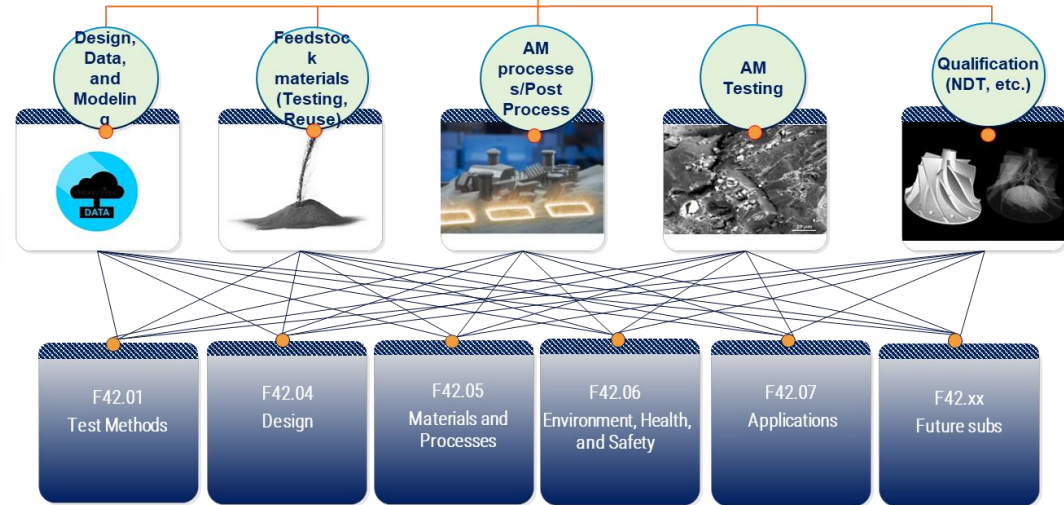
## R2S – Solidifying ASTM’s Thought Leadership: Identifying Gaps and Guiding Research

- Various tools and approaches have been developed to gain insights on Research and standardization needs.
- Findings have been publicly disseminated through the development of strategic guides and roadmaps.



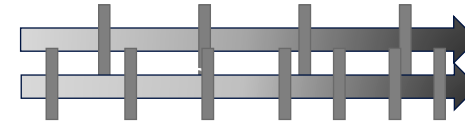
## AM CoE R&D Themes

CoE R&D Areas  
 ↑↓  
 Topics are crosslinked to create synergy!  
 ↓↑  
 F42.07 Applications

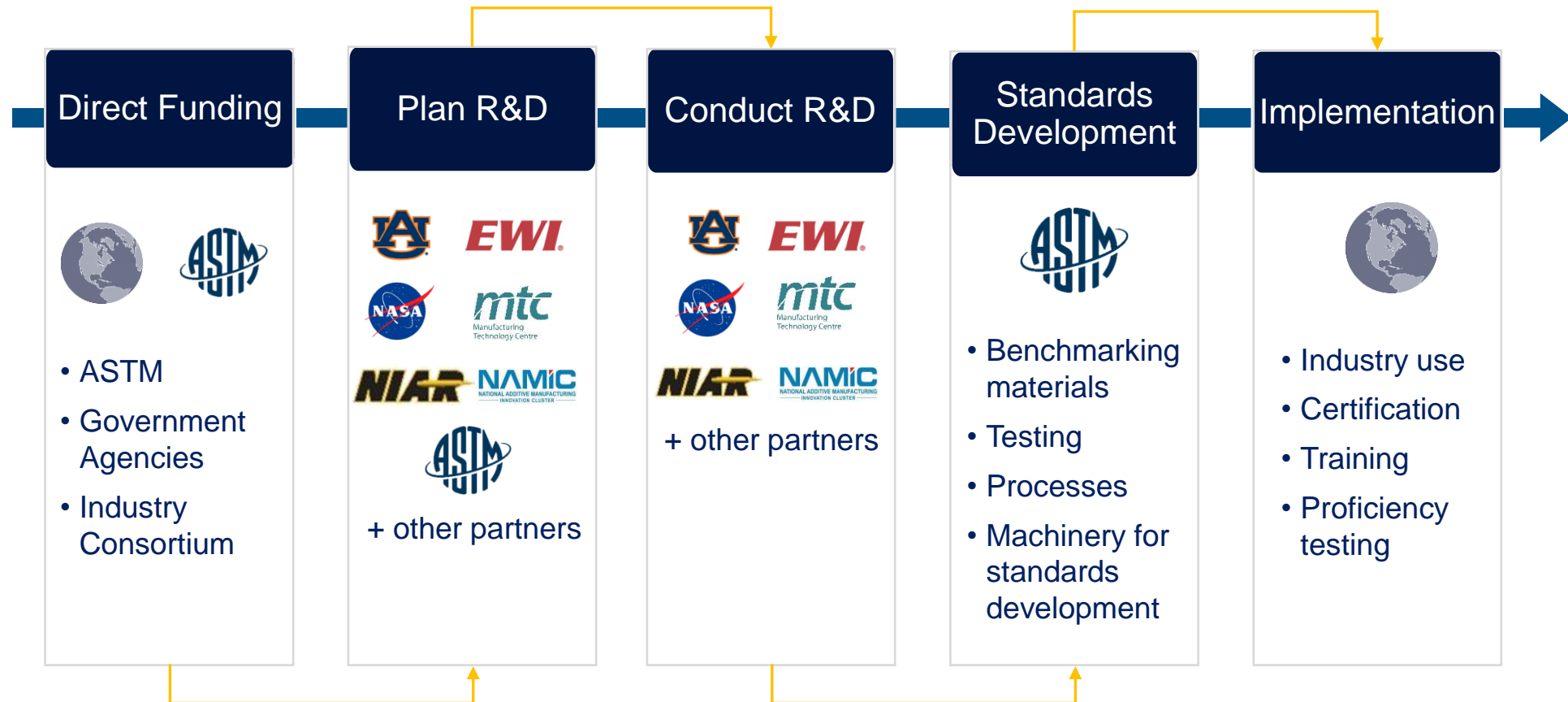


1. Defined based on the input of the CoE R&D team
2. Short-term
3. Highly-focused
4. High-priority (linked to AMSC roadmap and Committee F42)
5. Aligned with America Makes projects,
6. Coordination/collaboration with NIST

# AM CoE R&D: How it works



Tight coupling between “AM R&D” processes and “AM standards” development processes



# R2S Statistics



CENTER of EXCELLENCE  
Research to Standards  
ADDITIVE MANUFACTURING

- 7 Rounds of Project Call
- 37 R&D Projects
- 32 Technical Experts
- 27 Partners & Collaborators



**“Exceptional ROI”**



**As a benefit of R2S, partners and collaborators provide cost shares (e.g. \$3.7M from NAMIC)**

\* ~\$55K / Project (\$48K/project excluding Round 1)







Questions?